ON Semiconductor

INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION # 16441

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07 Apr 2010

TITLE: **ACMOS and VHVIC 2nd Source Qualification to Gresham FAB**

PROPOSED FIRST SHIP DATE: **Q4 2010/Q1 2011**

AFFECTED CHANGE CATEGORY(S): **Wafer Fab location**

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or for ACMOS: Todd Manes
< Todd.Manes@onsemi.com > or for VHVIC: Scott Brow < Scott.Brow@onsemi.com>

NOTIFICATION TYPE:

Initial Product/Process Change Notification (IPCN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change.

DESCRIPTION AND PURPOSE:

The purpose of this initial PCN is to notify customers of the qualification of a second source for our ACMOS and VHVIC wafer technologies at ON Semiconductor's wafer fabrication facilities in Gresham, Oregon.

This qualification is being made to increase the capacity for both of these popular technologies. These technologies are currently produced out of ON Semiconductor's wafer fabrication facilities in Aizu, Japan.

The VHVIC and ACMOS processes are being duplicated at the Gresham wafer FAB. No die design changes will occur. No changes to the device performance, data sheets or packaging will be made.

Multiple Final PCN's will be issued over the next 12 to 18 months for the specific families of parts to be dual sourced once the qualification steps are completed. Upon expiration of the associated Final PCN(s), devices may be supplied from either the Aizu FAB or the Gresham FAB.

Device samples will be made available once qualification is completed and the Final PCN is issued for the specific family.

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QUALIFICATION PLAN:

Full qualification testing will be performed on representative devices or groups of devices as necessary to ensure compliance to all existing ON Semiconductor reliability requirements. Specific plans and qualification results for each device family will be announced via individual Final PCN's as those qualifications are achieved.

Reliability testing for each qualification vehicle may include the following:

Test	Ref	Test Condition	Duration	Sample Size	# of Lots
High Temperature Bake (HTB)	J103	T_A = 150°C	1008hrs	80	3
High Temperature Operation Life (HTOL)	JA108	T_A = 125°C @ Bias	1008hrs	80	3
Preconditioning (PC)	JA112 J113	MSL1 or MSL3	N/A	80	3
Preconditioned Autoclave (PC-AC)	JA106	TA = 121°C RH = 100%	96hrs	80	3
Preconditioned Highly Accelerated Stress Test (PC-HAST)	JA101 JA110	TA = 130°C RH = 85%	96hrs	80	3
Preconditioned Unbiased Highly Accelerated Stress Test (PC-UHAST)	JA118	TA = 130°C RH = 85%	96hrs	80	3
Preconditioned Temperature Cycle (PC-TC)	JA104	-65°C to +150°C	500 cycles	80	3
Electro-static Discharge (ESD)		HBM, MM and CDM		3units / Voltage Level	1
Latch-up (LU)		Dynamic Latch-up		6	1
Electrical Distribution (ED)		ON Semi Spec		35	3

Qualifications at the Gresham wafer FAB will include a full set of reliability testing for the first devices to be qualified there. When sufficient qualification data has been gathered, future product qualifications will reuse qualification data as appropriate.

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List of affected General Parts:

PART	Technology	PART	Technology
NCP1396ADR2G	VHVIC	NCP690MN50T2G	ACMOS
NCP1396BDR2G	VHVIC	NCP690MNADJT2G	ACMOS
NCP1271D100R2G	VHVIC	NCP691MN15T2G	ACMOS
NCP1271D65R2G	VHVIC	NCP691MN18T2G	ACMOS
NCP1271P100G	VHVIC	NCP691MN25T2G	ACMOS
NCP1271P65G	VHVIC	NCP691MN33T2G	ACMOS
NCP1608BDR2G	VHVIC	NCP691MN50T2G	ACMOS
NCP1581DR2G	VHVIC	NCP691MNADJT2G	ACMOS
NCP600MN130R2G	ACMOS	NCP692MN15T2G	ACMOS
NCP600SN130T1G	ACMOS	NCP692MN18T2G	ACMOS
NCP600SN150T1G	ACMOS	NCP692MN25T2G	ACMOS
NCP600SN180T1G	ACMOS	NCP692MN33T2G	ACMOS
NCP600SN250T1G	ACMOS	NCP692MN50T2G	ACMOS
NCP600SN280T1G	ACMOS	NCP692MNADJT2G	ACMOS
NCP600SN300T1G	ACMOS	NCV8560MN150R2G	ACMOS
NCP600SN330T1G	ACMOS	NCV8560MN180R2G	ACMOS
NCP600SN350T1G	ACMOS	NCV8560MN250R2G	ACMOS
NCP600SN500T1G	ACMOS	NCV8560MN280R2G	ACMOS
NCP600SNADJT1G	ACMOS	NCV8560MN300R2G	ACMOS
NCP603SN130T1G	ACMOS	NCV8560MN330R2G	ACMOS
NCP603SN150T1G	ACMOS	NCV8560MN350R2G	ACMOS
NCP603SN180T1G	ACMOS	NCV8560MN500R2G	ACMOS
NCP603SN250T1G	ACMOS	NCV8560MNADJR2G	ACMOS
NCP603SN280T1G	ACMOS	NCV8560SN130T1G	ACMOS
NCP603SN300T1G	ACMOS	NCV8560SN150T1G	ACMOS
NCP603SN330T1G	ACMOS	NCV8560SN180T1G	ACMOS
NCP603SN350T1G	ACMOS	NCV8560SN250T1G	ACMOS
NCP603SN500T1G	ACMOS	NCV8560SN280T1G	ACMOS
NCP603SNADJT1G	ACMOS	NCV8560SN300T1G	ACMOS
NCP605MN15T2G	ACMOS	NCV8560SN330T1G	ACMOS
NCP605MN18T2G	ACMOS	NCV8560SN350T1G	ACMOS
NCP605MN25T2G	ACMOS	NCV8560SN500T1G	ACMOS
NCP605MN28T2G	ACMOS	NCV8560SNADJT1G	ACMOS
NCP605MN30T2G	ACMOS	NCP300HSN09T1G	ACMOS
NCP605MN33T2G	ACMOS	NCP300HSN18T1G	ACMOS
NCP605MN50T2G	ACMOS	NCP300HSN27T1G	ACMOS
NCP605MNADJT2G	ACMOS	NCP300HSN30T1G	ACMOS
NCP606MN15T2G	ACMOS	NCP300HSN45T1G	ACMOS
NCP606MN18T2G	ACMOS	NCP300HSN47T1G	ACMOS
NCP606MN25T2G	ACMOS	NCP300LSN09T1G	ACMOS
NCP606MN28T2G	ACMOS	NCP300LSN185T1G	ACMOS
NCP606MN30T2G	ACMOS	NCP300LSN185T1GH	ACMOS
NCP606MN33T2G	ACMOS	NCP300LSN18T1G	ACMOS
NCP606MN50T2G	ACMOS	NCP300LSN20T1G	ACMOS
NCP606MNADJT2G	ACMOS	NCP300LSN20T3G	ACMOS
NCP690MN15T2G	ACMOS	NCP300LSN25T1G	ACMOS
NCP690MN18T2G	ACMOS	NCP300LSN27T1G	ACMOS
NCP690MN25T2G	ACMOS	NCP300LSN28T1G	ACMOS
NCP690MN33T2G	ACMOS	NCP300LSN30T1G	ACMOS

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PART	Technology	PART	Technology
NCP300LSN33T1G	ACMOS	NCP302LSN27T1G	ACMOS
NCP300LSN34T1G	ACMOS	NCP302LSN30T1G	ACMOS
NCP300LSN44T1G	ACMOS	NCP302LSN30T1GH	ACMOS
NCP300LSN45T1G	ACMOS	NCP302LSN33T1G	ACMOS
NCP300LSN46T1G	ACMOS	NCP302LSN38T1G	ACMOS
NCP300LSN47T1G	ACMOS	NCP302LSN40T1G	ACMOS
NCP301HSN09T1G	ACMOS	NCP302LSN43T1G	ACMOS
NCP301HSN18T1G	ACMOS	NCP302LSN45T1G	ACMOS
NCP301HSN22T1G	ACMOS	NCP302LSN47T1G	ACMOS
NCP301HSN27T1G	ACMOS	NCP303LSN09T1G	ACMOS
NCP301HSN30T1G	ACMOS	NCP303LSN10T1G	ACMOS
NCP301HSN45T1G	ACMOS	NCP303LSN11T1G	ACMOS
NCP301LSN09T1G	ACMOS	NCP303LSN13T1G	ACMOS
NCP301LSN10T1G	ACMOS	NCP303LSN14T1G	ACMOS
NCP301LSN11T1G	ACMOS	NCP303LSN15T1G	ACMOS
NCP301LSN12T1G	ACMOS	NCP303LSN16T1G	ACMOS
NCP301LSN16T1G	ACMOS	NCP303LSN17T1G	ACMOS
NCP301LSN18T1G	ACMOS	NCP303LSN18T1G	ACMOS
NCP301LSN20T1G	ACMOS	NCP303LSN20T1G	ACMOS
NCP301LSN22T1G	ACMOS	NCP303LSN22T1G	ACMOS
NCP301LSN24T1G	ACMOS	NCP303LSN23T1G	ACMOS
NCP301LSN25T1G	ACMOS	NCP303LSN24T1G	ACMOS
NCP301LSN26T1G	ACMOS	NCP303LSN25T1G	ACMOS
NCP301LSN27T1	ACMOS	NCP303LSN26T1G	ACMOS
NCP301LSN27T1G	ACMOS	NCP303LSN27T1G	ACMOS
NCP301LSN27T1GH	ACMOS	NCP303LSN27T1GH	ACMOS
NCP301LSN28T1G	ACMOS	NCP303LSN28T1G	ACMOS
NCP301LSN30T1	ACMOS	NCP303LSN29T1G	ACMOS
NCP301LSN30T1G	ACMOS	NCP303LSN30T1G	ACMOS
NCP301LSN31T1G	ACMOS	NCP303LSN30T1GH	ACMOS
NCP301LSN32T1G	ACMOS	NCP303LSN31T1G	ACMOS
NCP301LSN33T1G	ACMOS	NCP303LSN32T1G	ACMOS
NCP301LSN34T1G	ACMOS	NCP303LSN33T1G	ACMOS
NCP301LSN36T1G	ACMOS	NCP303LSN34T1G	ACMOS
NCP301LSN39T1G	ACMOS	NCP303LSN36T1G	ACMOS
NCP301LSN40T1G	ACMOS	NCP303LSN38T1G	ACMOS
NCP301LSN42T1G	ACMOS	NCP303LSN40T1G	ACMOS
NCP301LSN45T1G	ACMOS	NCP303LSN42T1G	ACMOS
NCP301LSN46T1G	ACMOS	NCP303LSN44T1G	ACMOS
NCP301LSN47T1G	ACMOS	NCP303LSN45T1G	ACMOS
NCP302HSN09T1G	ACMOS	NCP303LSN46T1G	ACMOS
NCP302HSN18T1G	ACMOS	NCP303LSN47T1G	ACMOS
NCP302HSN27T1G	ACMOS	NCP303LSN49T1G	ACMOS
NCP302HSN30T1G	ACMOS	NCV300LSN28T1	ACMOS
NCP302HSN30T1GH	ACMOS	NCV300LSN28T1G	ACMOS
NCP302HSN40T1G	ACMOS	NCV300LSN36T1G	ACMOS
NCP302HSN45T1G	ACMOS	NCV301HSN27T1G	ACMOS
NCP302LSN09T1G	ACMOS	NCV301LSN12T1	ACMOS
NCP302LSN15T1G	ACMOS	NCV301LSN12T1G	ACMOS
NCP302LSN18T1G	ACMOS	NCV301LSN16T1	ACMOS
NCP302LSN20T1G	ACMOS	NCV301LSN16T1G	ACMOS

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PART	Technology
NCV301LSN22T1G	ACMOS
NCV301LSN28T1	ACMOS
NCV301LSN28T1G	ACMOS
NCV301LSN33T1G	ACMOS
NCV301LSN40T1G	ACMOS
NCV301LSN42T1G	ACMOS
NCV301LSN45T1G	ACMOS
NCV302LSN30T1G	ACMOS
NCV303LSN10T1G	ACMOS
NCV303LSN12T1G	ACMOS
NCV303LSN13T1G	ACMOS
NCV303LSN14T1G	ACMOS
NCV303LSN15T1G	ACMOS
NCV303LSN16T1G	ACMOS
NCV303LSN17T1G	ACMOS
NCV303LSN20T1G	ACMOS
NCV303LSN23T1G	ACMOS
NCV303LSN28T1G	ACMOS
NCV303LSN29T1G	ACMOS
NCV303LSN30T1G	ACMOS
NCV303LSN36T1G	ACMOS
NCV303LSN42T1G	ACMOS
NCV303LSN43T1G	ACMOS
NCV303LSN44T1G	ACMOS
NCV303LSN45T1G	ACMOS
NCV303LSN46T1G	ACMOS
NCV303LSN47T1G	ACMOS
NCV303LSN49T1G	ACMOS
NCS2220AMUT1G	ACMOS
NCP1406SNT1G	ACMOS
NCP1421DMR2G	ACMOS
NCP1422MNR2G	ACMOS
NCP1423DMR2G	ACMOS
NCP5208DR2G	ACMOS

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List of affected Customer Specific Parts:

PART	Technology
SCY99088ADR2G	VHVIC
SCY99088BDR2G	VHVIC
SCY99088CDR2G	VHVIC
SCY99088DDR2G	VHVIC
SCY99079ADR2G	VHVIC
SCY99079BDR2G	VHVIC
SCY99079CDR2G	VHVIC
SCY99079FDR2G	VHVIC
SCY99102BDR2G	VHVIC
SCY99076ADR2G	VHVIC
SCY99076AR2G	VHVIC
SCY99076BDR2G	VHVIC
SCY99076BR2G	VHVIC